

ton saw close at hand a faded but otherwise perfect female of *Anosia flexippus* in the garden of Mr. William Brewster of Cambridge, Mass. It remained for some time about the garden apparently searching for the food plant. This must have been a hibernator and it would seem scarcely possible that it could already have flown from so great a distance as the extreme southern states, but must have passed the winter in some locality somewhat further north. It will be recollected moreover that our last winter was unusually severe. S. H. S.

ATROPHARISTA JURINOIDES. — Professor Townsend mistakes my note in *Psyche*. I did not mean to criticize him for making a synonym — my own house is too vitreous to warrant the free use of such missiles. But he should not be so reluctant to admit in type what he does *in litteris*, that he had overlooked *Melanophrys*. I was in error in regard to the types: Mr. Aldrich tells me that the specimens in his collection which I examined were ones that he had compared with the types. All that I intended in the article referred to was a protest against the indiscriminate use of some of the characters upon which have been founded the hosts of new genera in this family within the past three or four years. S. W. Williston.

Lawrence, Kansas, May 5, 1893.

NOTE ON DR. WILLISTON'S CRITICISMS. — In his article in the March, 1893, number of *Psyche*, Professor Williston does me an injustice. My recent table of tachinidae contains all the genera in Brauer and von Bergenstamm's part i, which are referred by these authors to North America except several which are neither figured nor recognizably described, or else are insufficiently separated from the older genera. None of those in part ii are included, for the reason that not a single one of them is figured, and most of them are extremely difficult to recognize, even with that patient study and ample material commended by Professor Williston. I

do not believe that, in the unbiased entomological mind, genera erected in such fashion can stand. As to the figures that *are* published, and those in part i only, they are with almost no exception heads alone, excellent certainly, but usually there is no clew in the text to the venation. I contend that no amount of patient study and ample material is going to solve such problems *satisfactorily*. I do not accept Professor Williston's proposition that "figures are usually more valuable in this family than extended descriptions." The best of figures are always more or less misleading, and cannot be unflinchingly relied upon. Full and complete descriptions, conscientiously made, are of more value than any number of figures, since they contain information in such a form that it cannot be perverted or misinterpreted, either in the process of publication or afterwards. As to "multiplication of genera," this is the chief fault of the authors upheld, their next fault being the insufficient characterization of those multiplied. It is with the greatest reluctance that I have again referred to the work of these authors, in this particular. I do not "sweepingly condemn" this work. I have great faith in the validity of most of the characters employed by them, though I would not attach the same importance to all. Their figures are unexcelled if equalled, so far as they go. Their descriptions, not their system, are *splendid*, so far as they go!

C. H. Tyler Townsend.

Mar. 12, 1893.

ENTOMOLOGICAL NOTES. — A notable contribution to insect embryology by W. M. Wheeler appears in the last number of the *Journal of morphology*. The original portions of it relate chiefly to Orthoptera and indeed to Locustidae, but the author has investigated many other types including in all some thirty species. Sixty-one figures on the plates represent *Xiphidium*, *Stagmomantis* and *Gryllus*. Seventeen figures in the text are mostly diagrammatic.

Brunner von Wattenwyl has improved the opportunity offered by the study of the large series of Orthoptera collected by Fea in Burmah, to attempt a general revision of the system of Orthoptera by the introduction of tables for the determination of all the known genera (occasionally groups of genera) in the order, excepting only such as have been recently so treated elsewhere, when due reference is made. It will be found exceedingly useful for systematists, for no such general work has appeared since the time of Burmeister and Serville. A considerable number of new genera are thus introduced, and among them not a few of North American forms based sometimes on described, occasionally on undescribed species. The addition of at least a brief diagnosis of such species would have been acceptable. The work forms the first part of v. 33 of the *Annali del museo civico di Genova*.

L. Bruner prints a list of Nebraska Orthoptera reaching the astonishing number of 268 distinct kinds, a testimony to the activity and zeal of the author as well as to the extreme fruitfulness of his field. Brief notes of habitat and abundance accompany each entry (*Publ. Nebr. acad. sc.*, 3).

C. H. Tyler Townsend has left his position as entomologist in the experiment station at Las Cruces, New Mexico, to accept the curatorship of the museum in the Institute of Jamaica at Kingston, W. I., formerly occupied by Mr. Theodore D. A. Cockerell, who, curiously enough, moves to Las Cruces to take Mr. Townsend's place.

The Brussels Museum has begun the publication of a general catalogue of Hemiptera by Lethierry and Severin on the plan of Gemminger and Harold's catalogue of Coleoptera. The first volume embracing the Pentatomidae is promised at an early day. The whole work will probably occupy nine volumes and require five or six years for its publication. Its price will be about one cent a page.

Two new books on butterflies, by S. H. Scudder, have just been published by Henry

Holt & Co., of New York. One is a guide to our common butterflies and describes eighty-four species including (with only half a dozen exceptions) the caterpillar and chrysalis as well as the butterfly of each, besides tables to determine them in every stage. Brief biographies of each species are given and at the beginning there is a general introduction to the study of butterflies. The other is a very full account of the life of a butterfly for general readers, our milk-weed butterfly being the central figure.

The Western university of Pennsylvania has just conferred the degree of D. Sc. on Frederick Moore and of Ph. D. on A. G. Butler, both of London, in recognition of their work in entomology.

The West African moths figured in this number illustrate Dr. W. J. Holland's article. They are as follows: *Plate 17*. Fig. 1. *Ilema gonophora*; 2. *I. albibasalis*, ♀; 3. *I. miserata*; 4. *I. circumdata*; 5. *I. albicosta*; 6. *I. flava*; 7. *I. albospargata*; 8. *I. apicata*; 9. *I. diluta*; 10. *I. brunneicosta*; 11. *I. pallida*; 12. *I. fusca*; 13. *Argila affinis*; 14. *Nioda nigristriata*; 15. *Argila basalis*, Wlk., ♀; 16. *Nioda agrotoides*; 17. *N. erubescens*; 18. *Somera chloauchena*; 19. *S. chloana*; 20. *S. desmotis*; 21. *S. chloromorpha*; 22. *S. chloëropis*; 23. *Desmeocraera hinnula*; 24. *Somera bitoides*; 25. *Olene costiplaga*; 26. *Olene hyloica*; 27. *Notohyba viridis*; 28. *N. atrata*; 29. *Somera infima*, ♂; 30. *S. infima*, ♀; 31. *S. falsa*; 32. *Turnaca grisea*; 33. gen. (?) sp. (?). *Plate 18*. Fig. 1. *Dasychira apateloides*; 2. *D. nubifera*; 3. *Notohyba nubifuga*; 4. *N. delicata*; 5. *Notopriota ocellifera*; 6. *Notohyba proletaria*; 7. *Thamnocera albilinea*; 8. *Hypotrabala castanea*; 9. *Metanastria porphyria*; 10. *M. spargata*; 11. *Stibolepis subiridescens*; 12. *Lebedodes cossula*; 13. *Dasychira variegata*; 14. *D. albosignata*; 15. *Oecura crucifera*; 16. *Cyrtogone lichenodes*; 17. *Estigena Africana*; 18. *Orgyopsis tenuis*; 19. *Terphothrix lanaria*; 20. *Aroa omissa*.

No. 14, p. 476, should read *S. chloëropis*.